

REMARKS

In the Office Action dated March 23, 2005, claims 1, 8, and 30 were rejected under 35 U.S.C. § 112, ¶ 2; and claims 1-30 and 32 were rejected under § 102 over U.S. Patent No. 6,137,875 (Mo).

REJECTION UNDER 35 U.S.C. § 112, ¶ 2

Claims 1, 8, and 30 were rejected under § 112, ¶ 2, for being indefinite. In particular, the term “likely” was rejected as not being clearly defined. As explained in the previous Amendment, Applicant believes that the term “likely” is not indefinite in the context of the present invention. However, to reduce issues for further prosecution, the term “is likely to” has been replaced with “will” in claims 1, 8, and 30. Note that this amendment does not narrow the scope of the claim, since an ordinary meaning of the term “will” is “used to express probability.” See Merriam-Webster OnLine Dictionary (attached). Note that Applicant does not intend to limit the definition of “will” to this meaning only – rather, it is Applicant’s intent that the term “will” be given all of its ordinary meanings.

Withdrawal of the § 112 rejection is respectfully requested.

REJECTION UNDER 35 U.S.C. § 102

Claim 1 was rejected as being anticipated by Mo. Claim 1 recites a first switch system that includes a controller to determine if an indicated at least one available trunk will be used by a second switch for call origination, and *in response to determining that* the at least one available trunk will be used by the second switch, the controller is adapted to select another trunk for call origination.

In the rejection of claim 1, the Examiner cited column 4, lines 1-3, of Mo. The cited passage refers to a determination that is made in decision diamond 308 (Fig. 3 of Mo) whether a trunk is available on the LIFO free list. Based on this cited passage, the Office Action made the following conclusion:

Therefore, this determination determines other trunks (vs. the trunk is available) are most likely to be used. In response to the determination, and so [sic] the least likely to be used trunk is selected.

The conclusion derived in the Office Action based on the cited column 4 passage finds no support in the teachings of Mo itself. The cited column 4 passage of Mo is merely referring to finding an available trunk in a “free list.” This free list was equated by the Office Action to the information stored in the storage element that indicates at least one available trunk for originating a call with a second switch system, as recited in claim 1. The Office Action then cited the exact same element of Mo as teaching the following element of claim 1: “a controller adapted to determine if the indicated at least one available trunk will be used by the second switch for call origination.” All the cited column 4 passage would have taught a person of ordinary skill in the art is that a controller is able to determine, based on the LIFO free list, whether a trunk is available. There is absolutely no teaching in this cited column 4 passage, or anywhere else in Mo, of a controller to determine if the at least one available trunk (indicated by information stored in the storage element) will be used by the second switch for call origination.

There is also absolutely no teaching whatsoever in Mo of the following element of claim 1: “in response to determining that the at least one available trunk will be used by the second switch, the controller adapted to select another trunk for call origination.” Mo does not teach selecting another trunk *in response to determining that the at least one available trunk (indicated by stored information in a storage element) will be used by a second switch system.*

The actual teachings of Mo are as follows. Mo teaches that a group of trunks (indicated as being 7 in Figure 2 of Mo) can be divided into two subgroups 200 and 202 (Figure 2 of Mo). In switch module 11 of Figure 2 of Mo, the subgroup 200 is hunted (allocated) using a FIFO algorithm, while the subgroup 202 is hunted using a LIFO algorithm. Conversely, in the switch module 13 of Figure 2 of Mo, the subgroup 200 is hunted using a LIFO algorithm, while the subgroup 202 is hunted using a FIFO algorithm. Agreement is reached between the switch modules 11 and 13 regarding which one of the FIFO and LIFO algorithms have precedence. Mo, 3:65-67. In one example, the LIFO algorithm has precedence. In such an example, each switch module 11 or 13 selects a trunk by first hunting the LIFO subgroup (subgroup 202 for switch module 11 and subgroup 200 for switch module 13). Mo, 3:67-4:9. If a LIFO trunk is not available, then processing proceeds to the subgroup of lower precedence, in this case the FIFO subgroup, where a hunt for an available trunk is performed. Mo, 4:10-21. By dividing a group of trunks into two subgroups, the switch modules 11 and 13 are thus able to search different

subgroups (to avoid conflict) for selecting a trunk. However, this searching of different subgroups performed by switch modules 11 and 13 in Mo does not constitute a controller determining if an indicated at least one available trunk *will be used by a second switch for call origination*, and furthermore, *in response to determining that* the at least one available trunk will be used by the second switch, the controller to *select another trunk for call origination*.

Neither switch module 11 nor switch module 13 *determines* if an available trunk (of the free list) will be used by the opposing switch for call origination, and *in response to determining that* the at least one available trunk will be used by the second switch, to select another trunk for call origination. Mo relies upon the arrangement of separate and independent subgroups of trunks to reduce the likelihood of conflicts -- Mo does not make any specific determination of whether an available trunk will be used by an opposing switch, and to select another trunk *in response to determining that the available trunk will be used by the second switch*. All that occurs in Mo is that each switch module (11 or 13) searches first through the LIFO group, and if no trunk is available in the LIFO group, to search through the FIFO group. Switch module 11 of Mo does *not* make a determination of whether a selected trunk will be used by switch module 13, and to select another trunk for call origination in response to such determination. Conversely, switch module 13 of Mo does *not* make a determination of whether a selected trunk will be used by switch module 11, and to select another trunk in response to such determination.

In view of the foregoing, it is respectfully submitted that claim 1 is not anticipated by Mo.

Dependent claims 2-13 are allowable for at least the same reasons as claim 1. Moreover, with respect to dependent claim 5, Mo does not teach a controller to *remove an identifier* of the one trunk from the shadow queue and the main queue (which has been equated with items 204 and 206 of Mo by the Office Action). The Office Action identified steps 310, 318 of Figure 3 of Mo as the removing task of claim 5. Step 310 occurs if it is determined that a trunk on the LIFO free list is available. However, claim 5 recites that the controller is adapted to select *one trunk* for a call origination, and that the controller is adapted to remove an identifier of *the one trunk* from the shadow queue and the main queue. Step 310 of Mo removes *only* the head of the LIFO queue in response to a trunk on the LIFO free list being available—Mo does *not also* remove an entry from the FIFO queue. Similarly, step 318 of Mo removes *only* the head of the FIFO queue

if a member of the FIFO trunk group is available—Mo does *not also* remove an entry from the LIFO queue. Claim 5 is thus allowable for this additional reason.

In response to this argument, the Office Action made the following assertion:

The identifiers in item 204 are the same as identifiers in item 206 Fig. 2 of Mo. When an identifier in item 204 is removed, the same identifier must also be removed from item 206 Fig. 2 in order to indicate the unavailability of the same trunk. 3/23/2005 Office Action at 6.

This assertion is incorrect. Mo is clear that the subgroup 200 and subgroup 202, that make up a trunk group 7, are *separate* subgroups that do not share the same trunk. In other words, the identifiers for trunks in subgroup 200 *must* be different from the identifiers of the trunks in subgroup 202. *See* Mo, 1:60-61 (“This trunk group is then broken into two subgroups comprising three members each.”); 3:12-15 (“The trunk group herein comprises six trunks (there may be more or fewer according to the engineering of the network) and are divided into two equal subgroups of three.”). Therefore, Mo does not teach the additional subject matter of claim 5.

With respect to claim 6, which depends from claim 5, the Office Action cited Figure 4 of Mo as teaching that the controller is adapted to return an identifier of a released trunk to the shadow queue and the main queue. In Figure 4 of Mo, a deallocated LIFO trunk is attached to the head of the LIFO list (Mo, 4:48-51)—no teaching is made of returning an identifier of this deallocated LIFO to both a shadow queue and a main queue. Similarly, in Mo, a deallocated FIFO trunk is attached to the tail of the FIFO list (Mo, 4:54-58)—no teaching is made of returning an identifier of this deallocated FIFO trunk to both a shadow queue and a main queue. Claim 6 is thus allowable for at least this additional reason.

With respect to claim 8, Mo clearly does not disclose the comparing task, a point that was conceded by the previous Office Action. *See* 11/3/2004 Office Action at 8. Currently, the present Office Action cited column 4, lines 10-44, as teaching the comparing task. The cited passage does not teach a controller to *compare* an identifier in a main queue with an identifier in a corresponding entry in the shadow queue.

As discussed above regarding Mo, the queues 204 and 206 of the switch module depicted in Figure 2 of Mo identify trunks of *different and separate* subgroups of trunks. There would be absolutely no reason whatsoever for the switch module 11 to compare the identifier of a trunk of

queue 204 with an identifier of queue 206 to determine if the trunk selected from the first subgroup will be selected by the second switch module 13. The two queues 204 and 206 of Mo are associated with completely separate subgroups of trunks—therefore, there would never be conflict between a trunk selected in the first subgroup with any trunk in the second subgroup.

The teachings in column 4, lines 10-44, are consistent with Applicant's understanding of Mo.

Independent claim 14 recites selecting a trunk (in a first switch system) in response to a call origination based on first and second queues that contain identifiers arranged in different arrangements, where selecting the trunk includes: selecting a first trunk from available trunks in the first queue, and using the second queue to *predict* if the first trunk selected from the first queue will conflict with a trunk to be selected by a second switch system. Such prediction is not performed at all by Mo, which relies upon dividing a group of trunks into subgroups such that opposing switches perform hunting of trunks in different subgroups. Note that claim 14 recites that the second queue is used to predict if the first trunk *selected from the first queue* will conflict with a trunk to be selected by the second switch system.

In the Office Action, the rejection of claim 14 referred to the rejections of claims 1 and 2. In the rejection of claim 2, items 204 and 206 in switch module 11 were identified as being the first and second queues of claim 14. The switch module 11 of Mo does *not* use item 206 to predict if a trunk selected from item 204 will conflict with a trunk to be selected by switch module 13. In fact, items 204 and 206 relate to completely different subgroups of trunks—therefore, item 206 would have absolutely no information relating to whether a trunk selected from item 204 would conflict with a trunk to be selected by switch module 13.

The Office Action referred to step 308 of Fig. 3 as teaching the selecting of a trunk from available trunks in a *first* queue. Then the Office Action also referred to step 308 of Fig. 3 as using the *second* queue to predict if the first trunk selected from the *first* queue will conflict with a trunk to be selected by the second switch system. The determination at step 308 that no trunks are available in the LIFO queue merely is a determination that no trunks are available in the second queue. Determining that no trunks are available in the second queue does not equate to selecting a first trunk from available trunks in the first queue (which has been equated by the

Office Action as being the FIFO queue). In other words, the Office Action has referred to a teaching of Mo that does not exist in rejecting claim 14 over Mo.

Therefore, claim 14 is not anticipated by Mo. Dependent claims 15-21 and 32 are allowable for at least the same reasons. Moreover, dependent claim 16 is allowable for similar reasons as claim 8. Dependent claim 17 recites that the first switch system further removes an identifier of a selected trunk from first *and* second queues—as explained above with respect to claim 5, this does not occur in Mo. Dependent claim 18 is additionally allowable for reasons similar to those of claim 6, explained above.

Independent claim 22 is also not disclosed by Mo. Claim 22 recites maintaining a first list of available circuits in a first switch, *tracking* a second list of available circuits *in the second switch*, and selecting a circuit for call origination based on the first list and the *tracking of the second list*. In Mo, trunk selection for call origination is based on hunting through a first subgroup, followed by hunting through a second subgroup if no available trunk is found in the first subgroup. However, such selection of a trunk is not based on a first list of available circuits in a first switch and *tracking* of a second list of available circuits in *a second switch*. Therefore, claim 22 is not anticipated by Mo.

Dependent claims 23-28 are allowable for at least the same reasons. Moreover, with respect to claim 23, the rejection of claim 23 was grouped with the rejection of claims 2 and 15. No explanation was provided regarding how Mo teaches that tracking the second list is performed *without* communicating information regarding the second list from the second switch to the first switch. As explained by Mo, once switch module 11 seizes a trunk from a trunk group, a message including the group and member numbers of the seized trunk is sent to switch module 13, which marks the trunk as being in use. Mo, 2:64-3:2. Thus, in Mo, communication between the switch modules is necessary to determine which trunks are idle or busy. Therefore, Mo does not teach that tracking of the second list is performed *without* communicating information regarding the second list from the second switch to the first switch.

The rejection of dependent claim 24 was grouped with the rejection of claims 1, 4, 12, 22, 25, 29, and 32. No explanation was provided by the Office Action regarding how tracking the second list is performed locally in the first switch *without knowledge* of a content of the second list. In fact, as explained above with respect to claim 23, communication of a message occurs

between the switch modules 11 and 13 of Mo to enable the switch modules to know which trunks are idle or busy.

Dependent claim 27 is allowable over Mo for reasons similar to those of claim 5.
Dependent claim 28 is allowable over Mo for reasons similar to those of claim 6.


Independent claim 29 is allowable over Mo for similar reasons as claim 22.

With respect to independent claim 30, Mo does not disclose a trunk selection logic adapted to select an available trunk using a first queue and a shadow queue, where the trunk selection logic is adapted to access the shadow queue to determine if an available trunk *from the first queue* will be used by the second switch by call origination, and *in response to determining that* the available trunk will be used by the second switch, the controller adapted to select another trunk for call origination. Therefore, claim 30 is not anticipated by Mo.

The Commissioner is authorized to charge any additional fees and/or credit any overpayment to Deposit Account No. 20-1504 (NRT.0096US).

Respectfully submitted,

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